

REMARKS

This Amendment is submitted in full response to the Office Action dated September 23, 2005, on the merits of the above-identified case. A request for an appropriate extension of time and a check for the fees associated therewith are being filed concurrently herewith. In consideration of the remarks and amendments presented herein, reconsideration of this application is hereby respectfully requested.

To begin, Applicants herein acknowledge the provisional election of the invention of Group I, Species a, Subspecies ii, and that claims 1-11, 14-51, and 54 currently read on the elected invention. Further, claims 12-13, 52-53, and 55-72 are hereby withdrawn, without traverse, however, Applicants reserves the right to represent any or all of the withdrawn claims upon allowance of a generic claim or in a continuing application.

Looking further to the present Office Action, all of the claims stand rejected. Specifically, claims 1-2, 8, 16-18, 21-29, and 32-34 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,250,599 issued to Swartz or U.S. Patent No. 5,451,627 issued to Jamasbi; claims 1-2, 8, 10-11, 16-18, 21-29, and 32-34 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,450,253 issued to Suk; and, claims 3-7, 9, 14-15, 19-20, 30-31, 34-51, and 54 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Swartz, Jamasbi, or Suk. Additionally, claims 23-33, 35-51, and 54 stand rejected

under 35 U.S.C. §112, second paragraph, as being indefinite for failing to point out and distinctly claims the subject matter which Applicants regard as their invention.

Applicants are appreciative of the Examiner's detailed and conscientious review of this application, and respectfully ask for his conscientious reconsideration of same, in light of the amended claims presented herein, and following remarks.

I. Claim Rejections Under 35 U.S.C. §§102, 103, & 112

As an initial matter, claims 23-33, 35-51, and 54 have been amended with respect to the rejection under 35 U.S.C. §112. Specifically, the recitation of "generally" has been deleted from these claims, and therefore, Applicants respectfully submit that the basis for the rejection of claims under 35 U.S.C. §112, second paragraph, has been overcome.

Next, and before addressing the substantive issues with regard to the rejection of the claims under 35 U.S.C. §§102 and 103, Applicants respectfully point out the well established requirement:

For a prior art reference to anticipate in terms of 35 U.S.C. §102, every element of the claimed invention must be identically shown in a single reference. Diversitech Corp. v. Century Steps, Inc., 7 USPQ2d 1315, 1317 (Fed. Cir. 1988).

Moreover, this burden on the U.S. Patent and Trademark Office ("PTO") is further compounded by the fact that the Federal Circuit has stated that within the single reference:

[t]he identical invention must be shown in as complete detail as is contained in the patent claim. Richardson

v. Suzuki Motor Co. Ltd., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

And, more recently, the Federal Circuit has further expanded this principle to include that:

An anticipating reference must describe the patented subject matter with sufficient clarity and detail to establish that the subject matter existed in the prior art and that such existence would be recognized by persons of ordinary skill in the field of the invention. Crown Operations Int'l, Ltd. v. Solutia Inc., 289 F.3d 1367, 62 USPQ2d 1917, 1921 (Fed. Cir. 2002).

As such, if an Applicant can establish that at least one claimed element is not present or is not identically disclosed in as complete detail in a prior art reference put forth by the PTO, the grounds for rejection pursuant to 35 U.S.C. §102 of each claim comprising that element have been overcome. Furthermore, once the grounds for rejection under 35 U.S.C. §102 have been overcome, the PTO cannot merely turn to 35 U.S.C. §103 as a basis for maintaining a rejection without first meeting the requisite burden. Specifically, the decisions of the Federal Circuit instruct that:

In proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art [and further that] the mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992).

More recently, this point was further emphasized by the Federal Circuit, which added that:

To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the [Examiner] to show a motivation to combine the references that create the case of obviousness. In

other words, the [Examiner] must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.

This court has identified three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. Beckson Marine, Inc. v. NFM, Inc., 292 F.3d 718, 63 USPQ2d 1031, 1037 (Fed. Cir. 2002); citing In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

A. Amended Claims.

In view of the foregoing, Applicants have amended each of the independent claims currently pending in the present application to specifically recite at least one element which is not present or identically disclosed in as complete detail in any prior art reference put forth by the PTO, or otherwise known.

More in particular, the Office Action states that the referenced patents teach aqueous aerosol paint compositions comprising the claimed amounts of several components recited in Applicants' claims including, a polymeric resin. As such, and in light of the novel features of Applicants' present invention and the benefits derived therefrom, some review of the inventions disclosed in the cited references is warranted.

First, a number of the claims of the present Application have been rejected based on U.S. Patent No. 5,250,599 issued to Swartz, which is directed to aqueous aerosol coating compositions. The patent to Swartz states, column 2, lines 32-40, that an objective of the invention is to provide an aqueous aerosol coating

composition with "improved drying" and another objective is to provide "improved hardness." In particular, Swartz discloses:

a blend of a water soluble salt of an acrylic dispersible polymer with an ammonium or amine salt of a drying oil-modified copolymer, dimethyl ether, water, and a water soluble organic solvent. (column 2, lines 48-52)

The specification of the Swartz patent further provides that:

[the] improvement in drying time is obtained without adversely affecting other properties such as ... gloss, hardness and stability. (column 2, lines 55-57)

Additionally, the specification of the Swartz patent states that the water-soluble salt of the colloidal dispersible polymer has a molecular weight from about 20,000 to 200,000, with a preferred weight from about 40,000 to 50,000, and a glass transition temperature ("Tg") from about 30 degrees centigrade to about 140 degrees centigrade, with a preferred Tg of about 45 degrees centigrade. More importantly, Swartz states that:

[i]t is believed that the Tg accelerates the hardness development in the film and increases overall film hardness. (column 4, lines 5-7)

The Swartz patent further states at column 3, lines 46-50, that the "improvement in drying capability of the water-based aerosol composition ... arises from blending a water-soluble salt of an acrylic dispersible polymer with a water-soluble amine salt of the acrylate copolymer." Further, Swartz states that the oil-modified copolymer preferred for use with the invention is a drying oil-modified, low molecular weight copolymer of butyl acrylate and isobutyl methacrylate having a molecular weight of about 9,000, column 4, lines 43-50.

As a final matter, with regard to the water-soluble organic solvent, the Swartz patent states that:

the water-based aerosol paint composition of the present invention [also employs] a water-soluble organic solvent such as straight or branched chain monohydric alcohols of, for example, from 1 to about 6 carbon atoms, glycol ethers, esters, ketones and the like. Suitable organic solvents include methanol, ethanol, n-propanol, isopropanol, n-butanol, acetone, ethyl acetate, mono-alkyl ethers of ethylene, or propylene glycol having from one to about six carbon atoms in the alkyl moiety such as propylene glycol methyl ether, and ethylene glycol monobutyl ether, ethylene glycol mono-alkyl acetates of 3 to about 6 carbon atoms in the alkyl moiety, such as ethylene glycol monobutyl ether acetate, diacetone alcohol and ester alcohols and the like. The water-soluble organic solvent will include a mixture of a low-molecular weight organic solvents such as an alkanol, alkyl ester or alkyl ketone containing from 1 to about 6 carbon atoms in the alkyl moiety with a higher molecular weight, water-soluble, polar organic solvent that acts as a coupling organic solvent such as the above-mentioned mono-alkyl ethers of ethylene or propylene glycol or the ethylene glycol mono-alkyl acetates. Generally, the water-soluble organic solvent will be present in an amount of from about 0.5 percent to 80 percent, preferably from about 0.5 percent to about 20 percent by weight based on the total weight of the composition. (column 5, lines 29-55)

Next, U.S. Patent No. 5,451,627 issued to Jamasbi was presented as a basis to reject a number of the claims of the present application. The Jamasbi patent is directed to an aqueous fast drying aerosol coating composition comprising a blend of acrylic polymers and, similar to the Swartz patent, states that the inventive compositions provide improved drying rates and hardness, and further, that the inventive compositions provide for improved alkali resistance.

More in particular, the Jamasbi patent states that:

[t]he present invention is directed to an aqueous aerosol coating composition comprising a thermoplastic acrylic polymer solubilized in an aqueous solution of a monohydric alcohol to form a solubilized acrylic solution, the thermoplastic acrylic polymer having a weight average molecular weight in the range of 105,000 to 200,000. (column 2, lines 6-12).

The specification of the Jamasbi patent also states that these thermoplastic acrylic polymers exhibit a glass transition temperature ("Tg") in a range of 35 to 105 degrees centigrade, and preferably, 40 degrees centigrade, similar to the glass transition temperature ranges identified in the Swartz patent. Jamasbi further provides that:

[t]he aqueous aerosol coating composition further comprises a blend of the solubilized acrylic solution with a controlling amount of a water-based acrylic polymer for providing a desired degree of gloss and alkali resistance, the water-based acrylic polymer being selected from the group consisting of a water-soluble acrylic polymer, water-reducible acrylic polymer and a combination thereof. (column 2, lines 13-20).

Additionally, Jamasbi states that:

the desired film-forming and drying properties that are not obtained when the water-reducible, low molecular weight copolymer is employed without the water-soluble acrylic polymer. (column 6, lines 26-29).

Lastly, a number of the claims of the present application were rejected as being anticipated by U.S. Patent No. 4,450,253 issued to Suk, directed to a propellant-active carrier system for water-based paints. It is of interest to note that Suk discloses:

a critical combination of proportions of dimethyl ether, water and at least one water-soluble organic solvent preferably at least one monohydric alcohol and at least one water-soluble polar organic coalescing solvent, to provide a single liquid phase propellant-solvent solution in which the film-forming polymer is dissolved. (column 3, lines 32-38)

Of further interest, Suk discloses that:

[t]he film-forming polymers which are used in the compositions of the invention are drying oil-modified ester polymers which are solubilized to dissolve in the single liquid phase propellant-solvent solution provided by the dimethyl ether, water and at least one water-soluble polar solvent. Solubilization usually is achieved by neutralization of the acid component of the resin by a volatile base, usually ammonia and/or an amine, such as, dimethylamine, diethylamine, diethanolamine, or triethanolamine. Upon spraying the polymer from the aerosol container onto the substrate surface, volatilization of the base occurs and the polymer air dries to a water-resistant film. (column 5, lines 32-44)

And further that:

Oil modification of ester polymers is achieved by substitution of a natural or synthetic vegetable oil fatty acid for the mono-or poly-basic acid taking part in the esterification reaction. For example, for oil modification of alkyd resins, the polybasic acid is substituted in part by the vegetable oil fatty acid. The presence of the vegetable oil fatty acid imparts a drying capability to the polymer enabling it to rapidly form a hard, tough, elastic, water-resistant polymer film, especially in the presence of drying accelerators. (columns 6, lines 5-14).

The specification of the Suk patent also discloses that an aerosol water-based paint composition formulated as disclosed in the patent dries rapidly and "exhibits complete water resistance in an acceptable period of time, usually in about 3-5 hours," column 8, lines 1-3.

Conversely, an aqueous paint component of a preferred embodiment of Applicants' invention simply comprises an aqueous dispersion of a single short chain homopolymer, an aqueous solvent, such as water, and a plurality of additives in relatively small amounts. Of note is that Applicants' present invention is specifically formulated to provide a "temporary" coating which will

substantially degrade on its own over a relatively short period of time, such as, within four weeks of application onto a surface, as indicated in the present specification on page 5, lines 19-22. As such, Applicants' formulation comprises an aqueous dispersion of a single short-chain homopolymer, such as Mowilith D-50, manufactured by Clariant Mexico, S.A. de C.V., as stated in the present application at page 12, lines 14-19. Mowilith D-50 is an aqueous dispersion of a short chain homopolymer of vinyl acetate having a relatively low molecular weight for a polymer, and has a glass transition temperature of about 7 degrees centigrade. In contrast, the various resin systems disclosed in the cited references were specifically selected to comprise combinations of relatively high molecular weight polymers and copolymers with elevated glass transition temperatures to impart the desired properties of hardness and stability to coatings resulting from such formulations.

Applicants' present inventive composition is further formulated to minimize or eliminate volatile organic components, including many of the water-soluble organic solvents and other components disclosed in the Swartz, Jamasbi, and Suk patents, to provide a formulation which is less harmful to people and the environment. To this end, Applicants conducted extensive testing over a period of years to develop the present aqueous aerosol paint composition exhibiting these desired properties, as outlined in the Declaration of Arthur Coello, co-applicant and co-inventor of the

present invention, attached hereto as Exhibit A. Of particular interest is that a number of "polymeric resins" were incorporated into a variety of experimental test formulations over a period of years before Applicants' arrived at the specific "polymeric resin," i.e., the aqueous dispersion of a short chain homopolymer, which allowed them to substantially eliminate the hazardous volatile organic components, which is an important feature of their present inventive formulation.

Further, the Declaration illustrates that even once the "polymeric resin" was selected, additional testing was required to determine the optimum amount of UV inhibitor, or light stabilizer, to impart the desired degradation properties required for the "temporary" aqueous aerosol paint composition of the present invention. In light of the foregoing, Applicants respectfully submit that it would not have been obvious to one of ordinary skill in the art, at the time the invention was made, to select the components as disclosed by Applicants in the present application and arrive at Applicants' new, novel, and inventive formulation.

Accordingly, independent claims 1 and 35 have been amended to replace the broader recitation of "polymeric resin" and independent claim 54 has been amended to replace "polyvinyl acetate dispersion" with a further defined recitation of "an aqueous dispersion of a short chain polyvinyl acetate homopolymer". In addition, independent claim 22 has been amended to replace a "polymeric resin" with "an aqueous dispersion of short chain homopolymer". In

addition, dependent claims 24 and 42 have been amended in accordance with the foregoing to assure proper antecedent basis, and dependent claims 8 and 9 have been cancelled to avoid duplicative claims. Finally, Applicants have amended the specification to correct some minor typographical errors.

In view of the foregoing, Applicants respectfully maintain that independent claims 1, 22, 35, and 54 of the present application, as amended herein, are not anticipated by Swartz, Jambasi, or Suk, or any other reference cited in the present Office Action, as they fail to disclose a temporary aqueous aerosol marking paint composition having an aqueous paint component comprising "an aqueous dispersion of a short chain [polyvinyl acetate] homopolymer," as disclosed and claimed in the present invention. Furthermore, none of the references cited by the PTO in the present Office Action disclose "an aqueous paint component formulated to substantially degrade within four weeks of application."

Thus, Applicants have established that at least one element recited in each of the amended independent claims, namely, claims 1, 22, 35, and 54, is not present or is not identically disclosed in as complete detail by Swartz, Jamasbi, or Suk, and, as such, Applicants respectfully submit that the claim rejections under 35 U.S.C. §102 have been overcome. Further, in view of the foregoing, Applicants respectfully assert that the grounds for rejection under 35 U.S.C. §103 based upon Swartz, Jamasbi, or Suk, have also been

overcome.

Therefore, Applicants maintain that independent claims 1, 22, 35, and 54, as amended herein, are in condition for immediate allowance, and reconsideration by the Examiner is respectfully requested. In addition, each of the claims depending from independent claims 1, 22, 35, or 54, either directly or indirectly, are also in condition for immediate allowance:

Accordingly, based on the foregoing Amendments and Remarks, the Examiner is respectfully requested to reconsider his position with regard to the present application. Since nowhere in the art is this new, novel and non-obvious invention found, taught, or suggested, it is urged that this case is now clearly in condition for allowance and, accordingly, such action is respectfully solicited.

In the event that any additional fees may be required by the filing of this paper, an Authorization to Charge Fees to Deposit Account, **Deposit Account No. 13-1227**, is being filed concurrently with this Amendment.

Respectfully submitted,

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Dated: 3-23-06